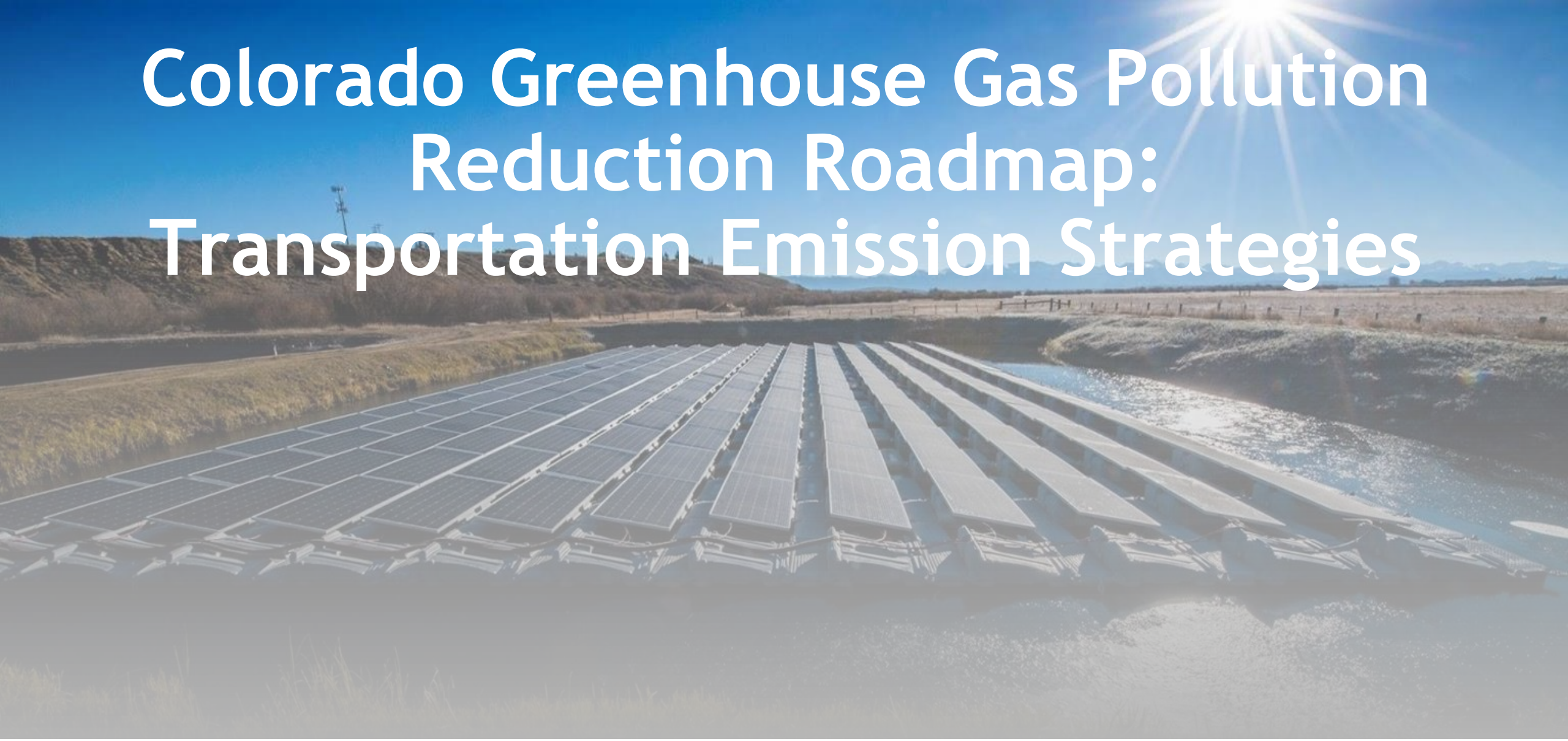


Colorado Greenhouse Gas Pollution Reduction Roadmap: Transportation Emission Strategies

July 2021

Largest GHG Emissions Sources

2020 Largest Emissions Sources

1. Transportation
2. Electric power
3. Oil & Gas
4. Buildings

Colorado Sector Based Emissions Targets

Sector	Revised 2005 Baseline (MMT CO2e)	2025 Target (MMT CO2e)	2030 Target (MMT CO2e)
Electricity	40.28	21	8
Oil and Gas	20.17	13	8
Transportation	30.71	23	18
Residential, Commercial, Industrial Energy Use	24.65	26	20
Other	23.42	19.9	15.6
Total	139.22	102.9	69.6
Percent Reduction	--	26%	50%

Near Term Actions: Transportation

Reduce pollution ~12.7 million tons (MMT) by 2030

6 MMT reduction

Low and Zero Emission Vehicle rules

2 MMT reduction

Utility and public investment in fleet turnover and infrastructure for light-duty zero emission vehicles (SB19-077, electrification investments from SB21-260)

Collectively, the other strategies will target remaining 4.7 million tons

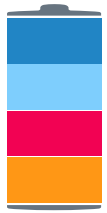
~4.7 MMT reduction

GHG Pollution Standards for transportation plans	In progress - CDOT TC Rulemaking – Summer 2021
Incentivize land use to increase housing near jobs and reduce VMT and pollution	Under evaluation
Clean trucking strategy - infrastructure, fleet incentives, consider regulatory tools such as advanced clean trucks and fleet rules	In progress - Study to be Completed – Summer 2021 Stakeholder Engagement – Summer/Fall 2021; plus fleet investments from SB21-260
Participate in developing post 2025 vehicle standards (state and federal)	Federal and CARB processes
AQCC evaluation of indirect source rules	Pending - AQCC Rulemaking
Expansion of public transit, including setting the stage for Front Range Rail	In progress - SB21-238, on-going multimodal emphasis

Low and Zero Emission Vehicle Standards

- In 2018, the Air Quality Control Commission (AQCC) approved low emission vehicle (LEV) standards for new light-duty and medium-duty motor vehicles sold in Colorado beginning in the 2022 model year
- Estimated to reduce carbon dioxide emissions by nearly 2 million tons annually by 2030
- In 2019 AQCC approved Zero Emission Vehicle Standards

SB21-260 Electrification Investments



$724 million of new fee revenue supports 3 new electrification and charging infrastructure Enterprises:

Charging Infrastructure & Electric Vehicle Equity

- New 'Community Access' Enterprise in Colorado Energy Office (CEO).
- Build charging infrastructure in communities across the State, and support electric vehicle and eBike adoption in low and moderate income communities.
- **$323 million** investment
- Paired with existing CO EV Infrastructure Fund - $115 million and potential federal $

Fleet Electrification Incentives

- New 'Clean Fleet' Enterprise in CO Department of Public Health and Environment (CDPHE)
- Support fleet replacement (delivery trucks, TNCs, school buses, and other light/medium/heavy duty vehicles) with incentives to meet climate and air quality goals
- Support CDPHE's Mobile Source Program to complement vehicle investment.
- **$320 million** investment

Public Transit Electrification

New enterprise in Colorado Department of Transportation (CDOT).

- Support electrification of public transit through electrification planning efforts, fleet replacement and associated charging infrastructure.
- **$81 million** investment

SB19-077- Utility Legislation

- Legislation to allow rate-basing of EV infrastructure and require every investor owned utility to file EV plans supporting widespread electrification every 3 years
- Plans can include utility or customer owned charging, make ready infrastructure, customer rebates, education and promotion
- First plan approved in January -

  $105 million investment over 3 years by Xcel
- Strong focus on equity

Target: 1 million light duty EVs by 2030

- Supported by existing policies + recent utility and public investment plans
- Key factor: federal infrastructure and budget reconciliation packages addressing EV tax credits, technology development, charging investments
- Achieving goal is now aligned with strategies of major automakers such as General Motors
- Achieving goal will reduce GHG approximately 2 million tons in 2030 beyond meeting existing LEV/ZEV standards

Post MY 2025 car standards

- Federal government (US EPA/US DOT) will develop new light duty vehicle GHG and CAFÉ standards
- Clean Air Act (CAA) also allows CA to adopt standards; other states can stick with federal standard or opt in to CA standard using Section 177 of CAA; CARB developing proposal for 100% ZEV new vehicles by 2035
- State will provide input to both federal and CA processes, to maximize likelihood that one or the other will meet Colorado's needs

Clean Trucking Strategy

In July 2020, CDOT, CDPHE, and CEO announced plans to develop an all-of-the-above strategy to reduce pollution from medium- and heavy-duty transportation. The draft strategy includes a suite of ideas that will be evaluated comprehensively to determine the most impactful and reasonable actions:

- Accelerating fleet turnover in the conventional truck fleet
- Incorporating clean technology and developing ZEV infrastructure, especially for critical freight corridors
- Encouraging participation in programs like SmartWay
- Exploring adoption of Advanced Clean Truck standard
- Supporting workforce development
- Leading by example through green procurement

Technical analysis by MJ Bradley nearing completion; Public Input meetings to be planned for early fall 2021

GHG Pollution Standards for Transportation Plans

- Rulemaking being undertaken by CDOT and the Transportation Commission. The Air Quality Control Commission is expected to focus on verification and monitoring
- Plan is to amend current state rules on transportation planning to incorporate a GHG standard on transportation plans. Certain aspects (mitigation measures) also will require subsequent CDOT policy directives
- Draft rule scheduled to be released on August 13 followed by 5 public hearings around the state. Rule development process has included dozens of stakeholder and public meetings
- CDOT has developed a policy paper that describes the major policy issues inherent in the rule, including:
  - How Pollution Reduction Levels Will Be Determined
  - Magnitude of the Reductions
  - Role of Mitigation Measures
  - Enforcement
- https://www.codot.gov/programs/environmental/greenhouse-gas
- Rule is not intended to achieve remaining 4.7 million tons by itself, but is a crucial element

Expansion of Public Transit and Front Range Rail

Increased transit and active transportation options are critical to reducing VMT including:

- More investment in physical infrastructure such as mobility hubs or light or commuter rail (e.g., the proposed Front Range Passenger Rail project, along I-25).
- More regular and reliable service along existing routes, such as more frequent and expansive bus rapid transit (BRT) along congested corridors.

CDOT is emphasizing Mobility Hubs and Bustang expansion in the 10-year plan

SB21-238 - Established Front Range Passenger Rail District

Land Use Planning and Incentives

Business along a Colorado Main Street
Source: Colorado.gov, 2019

State agencies must work with local governments and MPOs to develop strategies to promote more sustainable land use, and should develop criteria to use state investment to incentivize smart land use decisions which preserve land, create housing opportunities, reduce infrastructure costs and reduce emissions.

CDOT is currently holding conversations across the state to learn from the Revitalizing Main Streets investments and to understand how the Department can help communities implement their downtown visions, especially when the “main street” is a state highway.

HB21-1271 and HB21-1117 began the process of creating incentives for local zoning and planning reform

Indirect Source Standards

- Indirect sources generate or attract motor vehicle activity, such as shopping malls, developments, office buildings, warehouses or industrial sites.
- For all or some categories of projects, indirect source rules could supplement local land use authority to ensure the impacts from large attractors of mobile sources are evaluated and mitigated.
- Implementation of this type of regulation could help encourage more sustainable, multimodal and transit-oriented development, and could generate mitigation measures that support electrification.

Questions ?